

# TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY INDEX, VOLUMES 131-140 1968-1969

THIS INDEX INCLUDES MEMOIRS PUBLISHED DURING THE PERIOD  
APRIL 1968-JUNE 1969

	Vol.	Pages
ACCOLA, R. D. M. On the number of automorphisms of a closed Riemann surface .....	131 <sub>2</sub>	398-408
AGOSTON, M. K. On handle decompositions of diffeomorphisms .....	137	21-26
—— Relative knots and tangential equivalences .....	137	27-52
AKCOGLU, M. A. and SHARPE, R. W. Ergodic theory and boundaries .....	132 <sub>2</sub>	447-460
ALEXANDER, F. E. and TOMIUK, B. J. Complemented $B^*$ -algebras .....	137	459-480
ALLEN, H. P. Hermitian forms. I .....	138	199-210
ALLENBY, R. B. J. T. Permutational products and regular products of groups .....	136	537-543
ANDERSON, D. R. On homotopy spheres bounding highly connected manifolds .....	139	155-161
APPEL, K. I. and DJORUP, F. M. On the equation $z_1^n z_2^n \cdots z_k^n = y^n$ in a free semigroup .....	134 <sub>3</sub>	461-470
ARMENTROUT, STEVE. Concerning cellular decompositions of 3-manifolds that yield 3-manifolds .....	133 <sub>2</sub>	307-332
—— Concerning cellular decompositions of 3-manifolds with boundary .....	137	231-236
ARNOLD, J. T. On the dimension theory of overrings of an integral domain .....	138	313-326
ARNOLD, LUDWIG and MICHALICEK, JOHANNES. Complex-valued stable measures and their domains of attraction .....	135	143-158
ASIMOW, L. Extremal structure of well-capped convex sets .....	138	363-375
ASPLUND, E. and ROCKAFELLAR, R. T. Gradients of convex functions .....	139	443-467
BABAKHANIAN, A. On primitive elements in differentially algebraic extension fields .....	134 <sub>1</sub>	71-83
BAGGETT, LAWRENCE. A description of the topology on the dual spaces of certain locally compact groups .....	132 <sub>1</sub>	175-215
BALBES, RAYMOND. A representation theory for prime and implicative semilattices .....	136	261-267
BARNES, B. A. On the existence of minimal ideals in a Banach algebra .....	133 <sub>2</sub>	511-517

	Vol.	Pages
BARON, S. Reflectors as compositions of epi-reflectors .....	136	499-508
BARSHAY, JACOB. On the zeta function of bireprojective complete intersections .....	135	447-458
BARTH, T. J. Families of nonnegative divisors .....	131 <sub>1</sub>	223-245
BAUER, F.-W. and DUGUNDJI, J. Categorical homotopy and fibrations .....	140	239-256
BECHTELL, HOMER. A generalization of Hall-complementation in finite supersolvable groups .....	140	257-270
BECKER, J. C. Cohomology and the classification of liftings....	133 <sub>2</sub>	447-475
BERG, I. D., RAJAGOPALAN, M. and RUBEL, L. A. Uniform distribution in locally compact Abelian groups.....	133 <sub>2</sub>	435-446
BERGMAN, G. M. Centralizers in free associative algebras.....	137	327-344
BERMAN, S. M. Some continuity properties of Brownian motion with the time parameter in Hilbert space .....	131 <sub>1</sub>	182-198
—— Local times and sample function properties of stationary Gaussian processes .....	137	277-299
BERNARDI, S. D. Convex and starlike univalent functions .....	135	429-446
BERNDT, B. C. Identities involving the coefficients of a class of Dirichlet series. I .....	137	345-359
—— Identities involving the coefficients of a class of Dirichlet series. II.....	137	361-374
BLUM, PETER. Complete models of differential fields .....	137	309-325
BOOTHBY, W. M. Transitivity of the automorphisms of certain geometric structures .....	137	93-100
BOYCE, W. M. Commuting functions with no common fixed point .....	137	77-92
BREZIN, JONATHAN. Unitary representation theory for solvable Lie groups.....	Memoir No. 79	
BRODSKY, A. R. Weak wave operators for the nonlinear wave equation .....	137	237-244
BROWN, GORDON. Lie algebras of characteristic three with non-degenerate Killing form .....	137	259-268
BRUALDI, R. A. A very general theorem on systems of distinct representatives .....	140	149-160
BUCHI, J. R. and LANDWEBER, L. H. Solving sequential conditions by finite-state strategies .....	138	295-311
BURES, DONALD. An extension of Kakutani's theorem on infinite product measures to the tensor product of semifinite $w^*$ -algebras.....	135	199-212
BUSBY, R. C. Double centralizers and extensions of $C^*$ -algebras	132 <sub>1</sub>	79-99
BYRNES, J. S. and NEWMAN, D. J. Uniqueness theorems for convolution-type equations .....	137	383-397

	Vol.	Pages
CANNON, R. J., JR. Quasiconformal structures and the metrization of 2-manifolds .....	135	95-103
CARRELL, J. B. The cohomology ring of a smooth manifold ...	136	489-498
CATEFORIS, V. C. Flat regular quotient rings .....	138	241-249
CHARLAP, L. S. and VASQUEZ, A. T. Characteristic classes for modules over groups. I .....	137	533-549
CHARTRAND, GARY. On hamiltonian line-graphs .....	134 <sub>3</sub>	559-566
CHOE, T. H. On compact topological lattices of finite dimension	140	223-237
CHUI, C. K.-T. Bounded approximation by polynomials whose zeros lie on a circle .....	138	171-182
CLARK, D. N. Hankel forms, Toeplitz forms and meromorphic functions .....	134 <sub>1</sub>	109-116
CLEMENS, C. H., JR. Picard-Lefschetz theorem for families of nonsingular algebraic varieties acquiring ordinary singularities .....	136	93-108
COBURN, L. A. The $C^*$ -algebra generated by an isometry. II. ...	138	211-217
COHEN, M. M. A general theory of relative regular neighborhoods .....	136	189-229
COHN, P. M. Dependence in rings. II. The dependence number	135	267-279
COMFORT, W. W. On the Hewitt realcompactification of a product space .....	131 <sub>1</sub>	107-118
CONNELL, E. H. and HOLLINGSWORTH, JOHN. Geometric groups and Whitehead torsion .....	140	161-181
CONNELL, I. G. Some ring theoretic Schröder-Bernstein theorems	132 <sub>2</sub>	335-351
CONVERSE, G. A. Extreme positive operators on $C(X)$ which commute with given operators .....	138	149-158
CONVERSE, GEORGE, NAMIOKA, ISAAC and PHELPS, R. R. Extreme invariant positive operators .....	137	375-385
COOKE, ROGER. Measurable functions and spherical summability of multiple Fourier series .....	134 <sub>2</sub>	305-313
CSÖRGÖ, MIKLÓS. On the strong law of large numbers and the central limit theorem for martingales .....	131 <sub>1</sub>	259-275
—— Addendum to "On the strong law of large numbers and the central limit theorem for martingales" .....	136	545
DAUNS, JOHN and HOFMANN, K. H. Representation of rings by sections .....	Memoir No. 83	
DAVIES, E. B. The structure and ideal theory of the predual of a Banach lattice .....	131 <sub>2</sub>	544-555
DAWSON, D. A. Equivalence of Markov processes .....	131 <sub>1</sub>	1-31
DIAZ, J. B. and METCALF, F. T. On the set of subsequential limit points of successive approximations .....	135	459-485
DICKSON, S. E. On algebras of finite representation type .....	135	127-141

	Vol.	Pages
DINCULEANU, N. and FOIAȘ, C. Algebraic models for measure preserving transformations.....	134 <sub>2</sub>	215-237
DJORUP, F. M. and APPEL, K. I. On the equation $z_1^n z_2^n \cdots z_k^n = y^n$ in a free semigroup .....	134 <sub>3</sub>	461-470
DRASIN, DAVID. Tauberian theorems and slowly varying function .....	133 <sub>2</sub>	333-356
DUDLEY, R. M. Random linear functionals .....	136	1-24
DUGUNDJI, J. and BAUER, F.-W. Categorical homotopy and fibrations .....	140	239-256
DUNHAM, C. B. Chebyshev approximation by families with the betweenness property .....	136	151-157
DUPRE, A. M. III. Real Borel cohomology of locally compact groups .....	134 <sub>2</sub>	239-260
DYER, J. L. On the residual finiteness of generalized free products .....	133 <sub>1</sub>	131-143
EAVES, D. M. Prediction theory over discrete Abelian groups..	136	125-137
EDREI, ALBERT. Locally tauberian theorems for meromorphic functions of lower order less than one .....	140	309-332
ELLIOTT, E. O. Correction to "Measures on product spaces" ..	139	511
ELLIS, ROBERT. The structure of group-like extensions of minimal sets .....	134 <sub>2</sub>	261-287
EMERSON, W. R. Ratio properties in locally compact amenable groups .....	133 <sub>1</sub>	179-204
FEINERMAN, R. P. and NEWMAN, D. J. Completeness of $\alpha_n \cos nx + \beta_n \sin nx$ .....	136	231-245
FINLAYSON, H. C. Vladimirov-type approximation of Wiener integrals of suitably dominated functionals.....	132 <sub>2</sub>	461-469
FISHER, M. J. Singular integral operators over a Hilbert space.	131 <sub>2</sub>	437-465
—— Harmonic functions and their conjugates on Hilbert space .....	137	387-405
FISHER, S. D. On Schwarz's lemma and inner functions.....	138	229-240
FLANIGAN, F. J. Straightening-out and semirigidity in associative algebras .....	138	415-425
FOIAȘ, C. and DINCULEANU, N. Algebraic models for measure preserving transformations.....	134 <sub>2</sub>	215-237
FRASER, MARSHALL. Multiplicities and Grothendieck groups ..	136	77-92
FRIEDMAN, AVNER. The Stefan problem in several space variables	133 <sub>1</sub>	51-87
—— One dimensional Stefan problems with nonmonotone free boundary .....	133 <sub>1</sub>	89-114
—— Monotonicity of solutions of Volterra integral equations in Banach space .....	138	129-148
FUHRMANN, P. A. On the corona theorem and its application to spectral problems in Hilbert space .....	132 <sub>1</sub>	55-66
FULLER, K. R. The structure of QF-3 rings .....	134 <sub>2</sub>	343-354

	Vol.	Pages
FULP, R. O. Continuous characters of compact semigroups ...	137	421-430
GANTNER, T. E. Extensions of uniformly continuous pseudometrics .....	132 <sub>1</sub>	147-157
GARDINER, FRED. An analysis of the group operation in universal Teichmüller space.....	132 <sub>2</sub>	471-486
GASPER, GEORGE, JR. On the Littlewood-Paley $g$ -function and the Lusin $s$ -function .....	134 <sub>3</sub>	385-403
GIESY, D. P. Additions and corrections to "On a convexity condition in normed linear spaces" .....	140	511-512
GILLETTE, RICHARD and VAN BUSKIRK, JAMES. The word problem and consequences for the braid groups and mapping class groups of the 2-sphere .....	131 <sub>2</sub>	277-296
GILMER, ROBERT and HEINZER, WILLIAM. Primary ideals and valuation ideals. II. ....	131 <sub>1</sub>	149-162
GLICKFELD, B. W. The Riemann sphere of a commutative Banach algebra.....	134 <sub>1</sub>	1-28
GOLDSTEIN, C. I. Eigenfunction expansions associated with the Laplacian for certain domains with infinite boundaries. I...	135	1-31
—— Eigenfunction expansions associated with the Laplacian for certain domains with infinite boundaries. II. Applications to scattering theory .....	135	33-50
GONSHOR, HARRY. Injective hulls of $C^*$ algebras .....	131 <sub>2</sub>	315-322
GONSHOR, H. and RICE, A. Recursive density types. I .....	140	493-503
GONSHOR, H. Recursive density types. II. ....	140	505-509
GOODRICH, R. K. A Riesz representation theorem in the setting of locally convex spaces .....	131 <sub>1</sub>	246-258
GOSSELIN, R. P. Closure theorems for some discrete subgroups of $R^*$ .....	131 <sub>2</sub>	409-419
GOVIL, N. K. and RAHMAN, Q. I. Functions of exponential type not vanishing in a half-plane and related polynomials. ....	137	501-517
GRANIRER, E. E. Functional analytic properties of extremely amenable semigroups .....	137	53-75
GRÄTZER, G. Free $\Sigma$ -structures .....	135	517-542
GRETSKY, N. E. Representation theorems on Banach function spaces.....	Memoir No. 84	
GRIFFITH, PHILLIP. A solution to the splitting mixed group problem of Baer.....	139	261-269
GRILLET, P. A. The tensor product of semigroups.....	138	281-293
—— The tensor product of commutative semigroups.....	138	267-280
GROSS, FRED. On the distribution of values of meromorphic functions .....	131 <sub>1</sub>	199-214
—— On factorization of meromorphic functions.....	131 <sub>1</sub>	215-222

	Vol.	Pages
GROSS, FRED. Addendum to "On the distribution of values of meromorphic functions" .....	136	547
GROSS, K. I. The Plancherel transform on the nilpotent part of $G_2$ and some applications to the representation theory of $G_2$ .....	132 <sub>2</sub>	411-446
GROSSHANS, FRANK. Orthogonal representations of algebraic groups .....	137	519-531
GULICK, S. L. The minimal boundary of $C(X)$ .....	131 <sub>2</sub>	303-314
GUTERMAN, M. M. On $ABA$ -groups of finite order .....	139	109-143
HACKMAN, MATTHEW. The abstract time-dependent Cauchy problem .....	133 <sub>1</sub>	1-50
HAGER, A. W. Projections in zero-sets (and the fine uniformity on a product) .....	140	87-94
HALPERN, HERBERT. A spectral decomposition for self-adjoint elements in the maximum $GCR$ ideal of a von Neumann algebra with applications to noncommutative integration theory .....	133 <sub>2</sub>	281-306
—— Commutators in properly infinite von Neumann algebras .....	139	55-73
—— Module homomorphisms of a von Neumann algebra into its center .....	140	183-193
—— Irreducible module homomorphisms of a von Neumann algebra into its center .....	140	195-221
HAMILTON, R. S. Extremal quasiconformal mappings with prescribed boundary values .....	138	399-406
HANNULA, T. A. The integral representation ring $a(R_k G)$ .....	133 <sub>2</sub>	553-559
HARRIS, BRUNO. The $K$ -theory of a class of homogeneous spaces .....	131 <sub>2</sub>	323-332
HARRISON, JOSEPH. Recursive pseudo-well-orderings .....	131 <sub>2</sub>	526-543
HARROLD, O. G. and SEEBECK, C. L. Locally weakly flat spaces .....	138	407-414
HARTMAN, PHILIP. On disconjugate differential equations .....	134 <sub>1</sub>	53-70
HARVEY, REESE and WELLS, R. O., JR. Compact holomorphically convex subsets of a Stein manifold .....	136	509-516
HEEREMA, NICKOLAS. Convergent higher derivations on local rings .....	132 <sub>1</sub>	31-44
—— Inertial automorphisms of a class of wildly ramified $v$ -rings .....	132 <sub>1</sub>	45-54
HEINZER, WILLIAM and GILMER, ROBERT. Primary ideals and valuation ideals. II. ....	131 <sub>1</sub>	149-162
HERMAN, R. H. Generalizations of weakly compact operators .....	132 <sub>2</sub>	377-386
HERSH, REUBEN. A class of "central limit theorems" for convolution products of generalized functions .....	140	71-85
HILL, C. D. A method for the construction of reflection laws for a parabolic equation .....	133 <sub>2</sub>	357-372



	Vol.	Pages
HINTON, DON. Some stability conditions for a nonlinear differential equation .....	139	349-358
HOFMANN, KARL and DAUNS, JOHN. Representation of rings by sections .....		Memoir No. 83
HOLBROOK, J. A. R. Seminorms and the Egoroff property in Riesz spaces .....	132 <sub>1</sub>	67-77
HOLLINGSWORTH, JOHN and CONNELL, E. H. Geometric groups and Whitehead torsion .....	140	161-181
HORN, R. A. The theory of infinitely divisible matrices and kernels .....	136	269-286
——— Infinitely divisible positive definite sequences .....	136	287-303
HSIANG, W.-C. Correction to "Higher obstructions to sectioning a special type of fibre bundle" .....	131 <sub>2</sub>	556
HUNEKE, J. P. On common fixed points of commuting continuous functions on an interval .....	139	371-381
——— Mountain climbing .....	139	383-391
HUNT, R. A. and WHEEDEN, R. L. On the boundary values of harmonic functions .....	132 <sub>2</sub>	307-322
HURD, A. E. and SATTINGER, D. H. Questions of existence and uniqueness for hyperbolic equations with discontinuous coefficients .....	132 <sub>1</sub>	159-174
HURLEY, J. F. Ideals in Chevalley algebras .....	137	245-258
HUSCH, L. S. The monotone union property of manifolds .....	131 <sub>2</sub>	345-355
ISAAC, RICHARD. Isomorphism and approximation of general state Markov processes .....	140	367-380
JACOBS, M. Q. Measurable multivalued mappings and Lusin's theorem .....	134 <sub>3</sub>	471-481
JOCKUSCH, C. G., JR. Semirecursive sets and positive reducibility .....	131 <sub>2</sub>	420-436
JOHNSON, B. E. The Šilov boundary of $M(G)$ .....	134 <sub>2</sub>	289-296
JOHNSON, D. P. On a class of stochastic processes and its relationship to infinite particle gases .....	132 <sub>2</sub>	275-295
JOHNSON, E. W. $A$ -transforms and Hilbert functions on local lattices .....	137	125-139
JONAH, D. W. Cohomology of coalgebras .....		Memoir No. 82
JONES, H. T. and SPECHT, E. J. Compactness of the Neumann-Poincaré operator .....	140	353-366
KACZYNSKI, T. J. Boundary functions for bounded harmonic functions .....	137	203-209
KALME, CHARLES. A note on the connectivity of components of Kleinian groups .....	137	301-307
KAMOWITZ, HERBERT and SCHEINBERG, STEPHEN. Derivations and automorphisms of $L^1(0, 1)$ .....	135	415-427

	Vol.	Pages
KANTOROVITZ, SHMUEL. The $C^k$ -classification of certain operators in $L_p$ .....	132 <sub>2</sub>	323-333
KARLIN, SAMUEL and MCGREGOR, JAMES. Embeddability of discrete time simple branching processes into continuous time branching processes .....	132 <sub>1</sub>	115-136
—— Embedding iterates of analytic functions with two fixed points into continuous groups .....	132 <sub>1</sub>	137-145
KELLEY, AL. Changes of variables near a periodic surface or invariant manifold .....	131 <sub>2</sub>	356-364
KEMPERMAN, J. H. B. On the regularity of generalized convex functions .....	135	69-93
KEYNES, H. B. and ROBERTSON, J. B. Eigenvalue theorems in topological transformation groups .....	139	359-369
KILTINEN, J. O. Inductive ring topologies .....	134 <sub>1</sub>	149-169
KIM, SOON-KYU. Local triviality of Hurewicz fiber maps .....	135	51-67
KLATT, G. B. and LEVY, L. S. Pre-self-injective rings .....	137	407-419
KLEE, VICTOR. Maximal separation theorems for convex sets ..	134 <sub>1</sub>	133-147
KLEIN, A. A. Necessary conditions for embedding rings into fields .....	137	141-151
KLEIN, MELVYN. Functions starlike of order $\alpha$ .....	131 <sub>1</sub>	99-106
KNOPP, PAUL and SINKHORN, RICHARD. Problems involving diagonal products in nonnegative matrices .....	136	67-75
KNUDSON, D. W. On the deformation of commutative algebras .....	140	55-70
KORÁNYI, ADAM. Harmonic functions on Hermitian hyperbolic space .....	135	507-516
—— Boundary behavior of Poisson integrals on symmetric spaces .....	140	393-409
KRA, IRWIN. On the ring of holomorphic functions on an open Riemann surface .....	132 <sub>1</sub>	231-244
KREITH, KURT. Sturmian theorems and positive resolvents ....	139	319-327
KROLL, L. S. The uniqueness of Hermite series under Poisson-Abel summability .....	135	167-192
KU, H.-T. and KU, M.-C. Free differentiable actions of $S^1$ and $S^3$ on homotopy 11-spheres .....	138	223-228
KU, M.-C. and KU, H.-T. Free differentiable actions of $S^1$ and $S^3$ on homotopy 11-spheres .....	138	223-228
KYNER, W. T. Rigorous and formal stability of orbits about an oblate planet .....	Memoir No. 81	
LAHA, R. G. On an analytical decomposition of the Poisson law	140	137-148
LAHIRI, D. B. Some restricted partition functions: Congruences modulo 7 .....	140	475-484



	Vol.	Pages
LALLEMENT, GÉRARD and PETRICH, MARIO. Irreducible matrix representations of finite semigroups .....	139	393-412
LANDWEBER, L. H. and BUCHI, J. R. Solving sequential conditions by finite-state strategies .....	138	295-311
LAUFER, H. B. On the number of singularities of an analytic curve	136	527-534
LAURSEN, K. B. Tensor products of Banach algebras with involution .....	136	467-487
LAZAR, A. J. Spaces of affine continuous functions on simplexes	134 <sub>3</sub>	503-525
LAZAROV, CONNOR. Secondary characteristic classes in $K$ -theory	136	391-412
LEE, C. N. and RAYMOND, FRANK. Čech extensions of contravariant functors .....	133 <sub>2</sub>	415-435
LEVIT, R. J. Irreducibility of polynomials with low absolute values .....	132 <sub>2</sub>	297-305
LEVY, L. S. and KLATT, G. B. Pre-self-injective rings .....	137	407-419
LEWIN, JACQUES. On Schreier varieties of linear algebras .....	132 <sub>2</sub>	553-562
LEWIS, GENE. The integral cohomology rings of groups of order $p^3$	132 <sub>2</sub>	501-529
—— Free actions on $S^n \times S^n$ .....	132 <sub>2</sub>	531-540
LEWITTES, JOSEPH. Differentials and metrics on Riemann surfaces	139	311-318
LICKORISH, W. B. R. and MARTIN, J. M. Triangulations of the 3-ball with knotted spanning 1-simplexes and collapsible $r$ th derived subdivisions .....	137	451-458
LICKORISH, W. B. R. and SIEBENMANN, L. C. Regular neighborhoods and the stable range .....	139	207-230
LIN, S.-C. Wave operators and similarity for generators of semigroups in Banach spaces .....	139	469-494
LIULEVICIUS, ARUNAS. Homology comodules .....	134 <sub>2</sub>	375-382
LO, C. Y. On polynomials in self-adjoint operators in spaces with an indefinite metric .....	134 <sub>2</sub>	297-304
LONDON, DAVID and SCHWARZ, BINYAMIN. Disconjugacy of complex differential systems and equations .....	135	487-505
LOVELAND, L. D. Conditions implying that a 2-sphere is almost tame .....	131 <sub>1</sub>	170-181
LUBKIN, SAUL. A result on the Weil zeta function .....	139	297-300
LUCAS, W. F. The proof that a game may not have a solution ..	137	219-229
MCALISTER, D. B. Basic representations of arbitrary semigroups	135	311-342
MCARTHUR, C. W. and RETHERFORD, J. R. Some applications of an inequality on locally convex spaces .....	137	115-123
MCCRIMMON, KEVIN. The Freudenthal-Springer-Tits constructions of exceptional Jordan algebras .....	139	495-510
MCGREGOR, JAMES and KARLIN, SAMUEL. Embeddability of discrete time simple branching processes into continuous time branching processes .....	132 <sub>1</sub>	115-136

	Vol.	Pages
MCGREGOR, JAMES and KARLIN, SAMUEL. Embedding iterates of analytic functions with two fixed points into continuous groups .....	132 <sub>1</sub>	137-145
MCINTOSH, ALAN. Representation of bilinear forms in Hilbert space by linear operators .....	131 <sub>2</sub>	365-377
MCKENZIE, RALPH. On finite groupoids and $\mathcal{H}$ -prime algebras .....	133 <sub>1</sub>	115-129
MCLAUGHLIN, J. R. Haar series .....	137	153-176
MAHARAM, DOROTHY. Invariant measures and Radon-Nikodym derivatives .....	135	223-248
MAHOWALD, MARK and TANGORA, MARTIN. An infinite subalgebra of $\text{Ext}_A(Z_2, Z_2)$ .....	132 <sub>1</sub>	263-274
MANJARREZ, VICTOR. Polynomial bases for compact sets in the plane .....	132 <sub>2</sub>	541-551
MANN, AVINO'AM. Finite groups whose $n$ -maximal subgroups are subnormal .....	132 <sub>2</sub>	395-409
MARCUS, M. B. Hölder conditions for Gaussian processes with stationary increments .....	134 <sub>1</sub>	29-52
MARKLEY, N. G. The Poincaré-Bendixson theorem for the Klein bottle. ....	135	159-165
MARTIN, J. M. and LICKORISH, W. B. R. Triangulations of the 3-ball with knotted spanning 1-simplexes and collapsible $r$ th derived subdivisions .....	137	451-458
MARX, M. L. The branch point structure of extensions of interior boundaries .....	131 <sub>1</sub>	79-98
MASKIT, BERNARD. On Klein's combination theorem. II .....	131 <sub>1</sub>	32-39
MASTERSON, J. J. A characterization of the Riesz space of measurable functions. ....	135	193-197
MATLIS, EBEN. The decomposability of torsion free modules of finite rank .....	134 <sub>2</sub>	315-324
MATSUZAWA, TADATO. On quasi-elliptic boundary problems. ...	133 <sub>1</sub>	241-265
MAY, WARREN. Commutative group algebras. ....	136	139-149
MEDEIROS, L. A. The initial value problem for nonlinear wave equations in Hilbert space. ....	136	305-327
MENON, M. V. Some spectral properties of an operator associated with a pair of nonnegative matrices .....	132 <sub>2</sub>	369-375
METCALF, F. T. and DIAZ, J. B. On the set of subsequential limit points of successive approximations .....	135	459-485
MICHALICEK, JOHANNES and ARNOLD, LUDWIG. Complex-valued stable measures and their domains of attraction. ....	135	143-158
MILGRAM, R. J. The homology of symmetric products. ....	138	251-265
MILLAR, P. W. Martingale integrals .....	133 <sub>1</sub>	145-166
MILLER, J. G. Self-intersections of some immersed manifolds. .	136	329-338

	Vol.	Pages
MOSCHOVAKIS, Y. N. Abstract first order computability. I.....	138	427-464
—— Abstract first order computability. II .....	138	465-504
MOSER, J. K. Lectures on Hamiltonian systems .....	Memoir No. 81	
MOSHER, R. E. Secondary characteristic classes for $k$ -special bundles .....	131 <sub>2</sub>	333-344
MUCKENHOUPT, BENJAMIN. Poisson integrals for Hermite and Laguerre expansions .....	139	231-242
—— Hermite conjugate expansions .....	139	243-260
MUSKAT, J. B. On Jacobi sums of certain composite orders .....	134 <sub>3</sub>	483-502
NAGASAWA, MASAO and SIRAO, TUNEKITI. Probabilistic treatment of the blowing up of solutions for a nonlinear integral equation .....	139	301-310
NAKAI, MITSURU. Harmonic differential with prescribed singularities .....	131 <sub>2</sub>	297-302
NAMIOKA, ISAAC, CONVERSE, GEORGE and PHELPS, R. R. Extreme invariant positive operators .....	137	375-385
NEGREPONTIS, STELIOS. On the product of $F$ -spaces .....	136	339-346
NEHARI, ZEEV. Oscillation theorems for systems of linear differential equations .....	139	339-347
NEIDLEMAN, L. D. and STRAUS, E. G. Functions whose derivatives at one point form a finite set .....	140	411-422
NEWELL, DAVID. A functorial characterization of Tor for noetherian rings of global dimension 1 .....	134 <sub>1</sub>	183-192
NEWMAN, D. J. and BYRNES, J. S. Uniqueness theorems for convolution-type equations .....	137	383-397
NEWMAN, D. J. and FEINERMAN, R. P. Completeness of $\alpha_n \cos nx + \beta_n \sin nx$ .....	136	231-245
NEWMAN, D. J. and RAYMON, L. Quantitative polynomial approximation on certain planar sets .....	136	247-259
NOBLE, N. Products with closed projections .....	140	381-391
NUSSBAUM, A. E. A commutativity theorem for unbounded operators in Hilbert space .....	140	485-491
OLECH, CZESLAW. Existence theorems for optimal problems with vector-valued cost function .....	136	159-180
OLIN, PHILIP. An almost everywhere direct power .....	134 <sub>3</sub>	405-420
OLSON, M. P. The order-continuous operators on $L_p$ -spaces. Part I. General theory .....	133 <sub>2</sub>	477-504
ORNSTEIN, D. S. Random walks. I .....	138	1-43
—— Random walks. II .....	138	45-60
ORZECZ, MORRIS. A cohomological description of abelian Galois extensions .....	137	481-499

	Vol.	Pages
OSHER, STANLEY. Systems of difference equations with general homogeneous boundary conditions .....	137	177-201
OSOFSKY, B. L. Homological dimension and the continuum hypothesis .....	132 <sub>1</sub>	217-230
PADMANABHAN, A. R. Errata to "Convergence in measure and related results in finite rings of operators" .....	132 <sub>2</sub>	563
PALMER, T. W. Unbounded normal operators on Banach spaces	133 <sub>2</sub>	385-414
PEDERSEN, F. D. A representation for a class of lattice ordered groups .....	140	117-126
PETRICH, MARIO and LALLEMENT, GÉRARD. Irreducible matrix representations of semigroups .....	139	393-412
PETRYSHYN, W. V. and TUCKER, T. S. On the functional equations involving nonlinear generalized $P$ -compact operators	135	343-373
PHELPS, R. R., CONVERSE, GEORGE and NAMIOKA, ISAAC. Extreme invariant positive operators .....	137	375-385
PINCHUK, BERNARD. A variational method for functions of bounded boundary rotation .....	138	107-113
PINCUS, MARTIN. Gaussian processes and Hammerstein integral equations .....	134 <sub>2</sub>	193-214
PLUMMER, M. D. On minimal blocks .....	134 <sub>1</sub>	85-94
PORT, S. C. The first hitting distribution of a sphere for symmetric stable processes .....	135	115-125
PORTER, JACK and THOMAS, JOHN. On $H$ -closed and minimal Hausdorff spaces .....	138	159-170
POUSSON, H. R. Systems of Toeplitz operators on $H^2$ . II .....	133 <sub>2</sub>	527-536
PRICE, T. M. Decompositions of $S^3$ and pseudo-isotopies .....	140	295-299
PROSSER, R. T. On a similarity invariant for compact operators	134 <sub>1</sub>	171-181
PURDOM, P. W. and WILLIAMS, J. H. Cycle length in a random function .....	133 <sub>2</sub>	547-551
PUTNAM, C. R. The spectra of operators having resolvents of first-order growth .....	133 <sub>2</sub>	505-510
RAHMAN, Q. I. Some inequalities concerning functions of exponential type .....	135	281-293
——, Functions of exponential type .....	135	295-309
RAHMAN, Q. I. and GOVIL, N. K. Functions of exponential type not vanishing in a half-plane and related polynomials .....	137	501-517
RAJAGOPALAN, M., BERG, I. D. and RUBEL, L. A. Uniform distribution in locally compact Abelian groups .....	133 <sub>2</sub>	435-446
RANDOL, BURTON. On the Fourier transform of the indicator function of a planar set .....	139	271-278
—— On the asymptotic behavior of the Fourier transform of the indicator function of a convex set .....	139	279-285

	Vol.	Pages
RAYMON, L. and NEWMAN, D. J. Quantitative polynomial approximation on certain planar sets .....	136	247-259
RAYMOND, FRANK. Classification of the actions of the circle on 3-manifolds .....	131 <sub>1</sub>	51-78
RAYMOND, FRANK and LEE, C. N. Čech extensions of contravariant functors .....	133 <sub>2</sub>	415-434
REICH, EDGAR and STREBEL, KURT. On quasiconformal mappings which keep the boundary points fixed .....	138	211-222
REILLY, N. R. Bisimple inverse semigroups .....	132 <sub>1</sub>	101-114
RETFERFORD, J. R. and MCARTHUR, C. W. Some applications of an inequality in locally convex spaces .....	137	115-123
RHEINOLDT, W. C. Local mapping relations and global implicit function theorems .....	138	183-198
RICE, G. and GONSHOR, H. Recursive density types. I. ....	140	493-503
RICHEN, FORREST. Modular representations of split $BN$ pairs...	140	435-460
RIEFFEL, M. A. The Radon-Nikodym theorem for the Bochner integral .....	131 <sub>2</sub>	466-487
RIGELHOF, ROGER. Norm decreasing homomorphisms of measure algebras .....	136	361-371
—— A characterization of $M(G)$ .....	136	373-379
RISCH, R. H. The problem of integration in finite terms .....	139	167-189
RIVIÈRE, N. M. and SAGHER, Y. Multipliers of trigonometric series and pointwise convergence .....	140	301-308
ROBERTS, L. G. $K_1$ of some abelian categories .....	138	377-382
ROBERTSON, J. B. and KEYNES, H. B. Eigenvalue theorems in topological transformation groups .....	139	359-369
ROCKAFELLAR, R. T. and ASPLUND, E. Gradients of convex functions .....	139	443-467
RODABAUGH, D. J. On the Wedderburn principal theorem. ....	138	343-361
ROSENKRANTZ, W. A. A rate of convergence for the Von Mises statistic .....	139	329-337
ROTHAUS, O. S. Some properties of Laplace transforms of measures .....	131 <sub>1</sub>	163-169
ROY, PRABIR. Nonequality of dimensions for metric spaces. ....	134 <sub>1</sub>	117-132
RUBEL, L. A., BERG, I. D. and RAJAGOPALAN, M. Uniform distribution in locally compact Abelian groups. ....	133 <sub>2</sub>	435-446
RUDIN, WALTER. Pairs of inner functions on finite Riemann surfaces .....	140	423-434
RUDIN, WALTER and STOUT, E. L. Modules over polydisc algebras .....	138	327-342
SAFF, E. B. and WALSH, J. L. Extensions of D. Jackson's theorem on best complex polynomial mean approximation. ....	138	61-69

	Vol.	Pages
SAGHER, Y. and RIVIÈRE, N. M. Multipliers of trigonometric series and pointwise convergence .....	140	301-308
SALAFF, STEPHEN. Regular boundary conditions for ordinary differential operators .....	134 <sub>2</sub>	355-373
SATTINGER, D. H. and HURD, A. E. Questions of existence and uniqueness for hyperbolic equations with discontinuous coefficients. ....	132 <sub>1</sub>	159-174
SAWYER, S. Uniform limit theorems for the maximum cumulative sum in probability .....	132 <sub>2</sub>	363-367
SAYLOR, P. E., A priori estimates for continuation problems for elliptic and principally normal differential equations. ....	139	95-108
SCARPELLINI, BRUNO. On the metamathematics of rings and integral domains .....	138	71-96
SCHEINBERG, STEPHEN and KAMOWITZ, HERBERT. Derivations and automorphisms of $L^1(0, 1)$ .....	135	415-427
SCHIFFER, MENAHEM. On the coefficient problem for univalent functions .....	134 <sub>1</sub>	95-101
SCHIFFER, MENAHEM and TAMMI, OLLI. On the coefficient problem for bounded univalent functions .....	140	461-474
SCHMIDT, W. M. Irregularities of distribution. II. ....	136	347-360
SCHURLE, A. W. Compactification of strongly countable-dimensional spaces .....	136	25-32
SCHWARZ, BINYAMIN and LONDON, DAVID. Disconjugacy of complex differential systems and equations. ....	135	487-505
SEEBECK, C. L. and HARROLD, O. G. Locally weakly flat spaces .....	138	407-414
SEEVER, G. L. Measures on $F$ -spaces .....	133 <sub>1</sub>	267-280
SEXAUER, N. E. and WARNOCK, J. E. The radical of the row-finite matrices over an arbitrary ring .....	139	287-295
SHARPE, MICHAEL. Operator-stable probability distributions on vector groups .....	136	51-65
SHARPE, R. W. and AKCOGLU, M. A. Ergodic theory and boundaries .....	132 <sub>2</sub>	447-460
SHERMAN, M. J. A spectral theory for inner functions .....	135	387-398
SHOENFIELD, J. R. A hierarchy based on a type two object ....	134 <sub>1</sub>	103-108
SIDNEY, S. J. Point derivations in certain sup-norm algebras ...	131 <sub>1</sub>	119-127
—— Properties of the sequence of closed powers of a maximal ideal in a sup-norm algebra .....	131 <sub>1</sub>	128-148
SIEBENMANN, L. C. and LICKORISH, W. B. R. Regular neighborhoods and the stable range .....	139	207-230
SILVERMAN, EDWARD. A weak projection of $C$ onto a Euclidean subspace .....	136	381-390



	Vol.	Pages
SINKHORN, RICHARD and KNOPP, PAUL. Problems involving diagonal products in nonnegative matrices .....	136	67-75
SIRAO, TUNEKITI and NAGASAWA, MASAO. Probabilistic treatment of the blowing up of solutions for a nonlinear integral equation .....	139	301-310
SIU, Y.-T. Noether-Lasker decomposition of coherent analytic subsheaves .....	135	375-385
SJERVE, DENIS. Geometric dimension of vector bundles over lens spaces .....	134 <sub>3</sub>	545-557
—— Vector bundles over orbit manifolds .....	138	97-106
SOARE, R. I. Recursion theory and Dedekind cuts .....	140	271-294
SOLOMON, D. W. Denjoy integration in abstract spaces .....	Memoir No. 85	
SPECHT, E. J. and JONES, H. T. Compactness of the Neumann-Poincaré operator .....	140	353-366
SRINIVASAN, BHAMA. The characters of the finite symplectic group $Sp(4, q)$ .....	131 <sub>2</sub>	488-525
STEARNS, R. E. Convergent transfer schemes for $N$ -person games .....	134 <sub>3</sub>	449-459
STEIN, E. M. and WEISS, N. J. On the convergence of Poisson integrals .....	140	35-54
STEINBERG, ROBERT. Endomorphisms of linear algebraic groups	Memoir No. 80	
STEPHENSON, R. M., JR. Spaces for which the Stone-Weierstrass theorem holds .....	133 <sub>2</sub>	537-546
—— Pseudocompact spaces .....	134 <sub>3</sub>	437-448
—— Minimal first countable topologies .....	138	115-127
STONE, C. J. On the potential operator for one-dimensional recurrent random walks .....	136	413-426
—— Asymptotic behavior of the convolution of a pair of measures .....	136	427-445
STOUT, E. L. and RUDIN, WALTER. Modules over polydisc algebras .....	138	327-342
STRATTON, H. H., JR. On dimension of support for stochastic processes with independent increments .....	132 <sub>1</sub>	1-29
STRAUS, E. G. and NEIDLEMAN, L. D. Functions whose derivatives at one point form a finite set .....	140	411-422
STREBEL, KURT and REICH, EDGAR. On quasiconformal mappings which keep the boundary points fixed .....	138	211-222
STRICHARTZ, R. S. $L^p$ estimates for integral transforms .....	136	33-50
SUDDERTH, W. D. On the existence of good stationary strategies	135	399-414
SWANSON, C. A. An identity for elliptic equations with applications .....	134 <sub>2</sub>	325-333
SWEEDLER, M. E. Cohomology of algebras over Hopf algebras	133 <sub>1</sub>	205-239

	Vol.	Pages
TAMMI, OLLI and SCHIFFER, MENAHEM. On the coefficient problem for bounded univalent functions .....	140	461-474
TAMURA, T. Errata to "The theory of operations on binary relations" .....	134 <sub>2</sub>	383
TANGORA, MARTIN and MAHOWALD, MARK. An infinite subalgebra of $\text{Ext}_A(Z_2, Z_2)$ .....	132 <sub>1</sub>	263-274
TANNO, SHŪKICHI. The automorphism groups of almost Hermitian manifolds .....	137	269-275
TAYLOR, J. L. $L$ -subalgebras of $M(G)$ .....	135	105-113
THOMAS, D. K. On Bazilevič functions .....	132 <sub>2</sub>	353-361
THOMAS, EMERY. On the existence of immersions and submersions .....	132 <sub>2</sub>	387-394
THOMAS, JOHN and PORTER, JACK. On $H$ -closed and minimal Hausdorff spaces .....	138	159-170
TO, T. O. A note of correction to a theorem of W. E. Bonnice and R. J. Silverman. ....	139	163-166
TOLLE, J. W. Analytic canonical forms for nonlinear difference equations. ....	134 <sub>3</sub>	527-544
TOMIUK, B. J. and ALEXANDER, F. E. Complemented $B^*$ -algebras .....	137	459-480
TREVES, FRANÇOIS. On the theory of linear partial differential operators with analytic coefficients .....	137	1-20
TUCKER, T. S. and PETRYSHYN, W. V. On the functional equations involving nonlinear generalized $P$ -compact operators. ....	135	343-373
VAN BUSKIRK, JAMES and GILLETTE, RICHARD. The word problem and consequences for the braid groups and mapping class groups of the 2-sphere .....	131 <sub>2</sub>	277-296
VASCONCELOS, W. V. On finitely generated flat modules. ....	138	505-512
VASQUEZ, A. T. and CHARLAP, L. S. Characteristic classes for modules over groups. I .....	137	533-549
VEECH, W. A. Strict ergodicity in zero dimensional dynamical systems and the Kronecker-Weyl theorem mod 2 .....	140	1-33
VOUGHT, E. J. $n$ -aposyndetic continua and cutting theorems. ...	140	127-135
WALLACH, N. R. Induced representations of Lie algebras and a theorem of Borel-Weil .....	136	181-187
WALSH, J. L. and SAFF, E. B. Extensions of D. Jackson's theorem on best complex polynomial mean approximation. ....	138	61-69
WALTERS, PETER. Topological conjugacy of affine transformations of tori. ....	131 <sub>1</sub>	40-50
—— Topological conjugacy of affine transformations of compact abelian groups .....	140	95-107
WANG, S. P. Limit of lattices in a Lie group .....	133 <sub>2</sub>	519-526
WARNER, SETH. Locally compact rings having a topologically nilpotent unit .....	139	145-154

	Vol.	Pages
WARNOCK, J. E. and SEXAUER, N. E. The radical of the row-finite matrices over an arbitrary ring .....	139	287-295
WARREN, H. E. Lower bounds for approximation by nonlinear manifolds .....	133 <sub>1</sub>	167-178
WATANABE, SHINZO. On two dimensional Markov processes with branching property .....	136	447-466
WEISS, N. J. Convergence of Poisson integrals on generalized upper half-planes .....	136	109-123
WEISS, N. J. and STEIN, E. M. On the convergence of Poisson integrals .....	140	35-54
WEITSMAN, ALLEN. Asymptotic behavior of meromorphic functions with extremal deficiencies .....	140	333-352
WELLAND, G. V. On the fractional differentiation of a function of several variables .....	132 <sub>2</sub>	487-500
WELLS, R. O., JR. Holomorphic hulls and holomorphic convexity of differentiable submanifolds .....	132 <sub>1</sub>	245-262
WELLS, R. O., JR. and HARVEY, REESE. Compact holomorphically convex subsets of a Stein manifold .....	136	509-516
WHEEDEN, R. L. On hypersingular integrals and Lebesgue spaces of differentiable functions .....	134 <sub>3</sub>	421-435
—— On hypersingular integrals and Lebesgue spaces of differentiable functions. II .....	139	37-53
WHEEDEN, R. L. and HUNT, R. A. On the boundary values of harmonic functions .....	132 <sub>2</sub>	307-322
WHITTEN, W. C., JR. Symmetries of links .....	135	213-222
WILKE, F. W. and ZEMMER, J. L. Some new finite translation planes .....	131 <sub>2</sub>	378-397
WILLIAMS, F. D. Higher homotopy-commutativity .....	139	191-206
WILLIAMS, J. H. and PURDOM, P. W. Cycle length in a random function .....	133 <sub>2</sub>	547-551
WILSON, F. W., JR. Smoothing derivatives of functions and applications .....	139	413-428
WISCAMB, M. R. On symmetric neighborhood systems in metric, strongly paracompact and some other types of spaces ....	137	431-450
WOLF, J. A. A compatibility condition between invariant riemannian metrics and Levi-Whitehead decompositions on a coset space .....	139	429-442
WONG, R. Y. T. On topological equivalence of $\aleph_0$ -dimensional linear spaces .....	137	551-560
WONG, W. J. A characterization of the finite projective symplectic groups $PSp_4(q)$ .....	139	1-35
WRIGHT, J. D. M. A Radon-Nikodym Theorem for Stone algebra valued measures .....	139	75-94

	Vol.	Pages
WRIGHT, R. K. On algebraic extensions and order-preserving isomorphisms of certain partially ordered fields.....	137	101-114
WULBERT, D. E. Continuity of metric projections .....	134 <sub>2</sub>	335-341
YATES, C. E. M. On the degrees of index sets. II.....	135	249-266
ZACHMANOGLU, E. C. Uniqueness of the Cauchy problem for linear partial differential equations with variable coefficients.....	136	517-526
—— An application of Holmgren's theorem and convexity with respect to differential operators with flat characteristic cones .....	140	109-115
ZAKON, ELIAS. On the uniform spaces with quasi-nested base	133 <sub>2</sub>	373-384
ZEMMER, J. L. and WILKE, F. W. Some new finite translation planes.....	131 <sub>2</sub>	378-397

